UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,474	11/30/2004	Charles Loboz	041-544-L	2848

27276	7590	03/20/2006

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EXAMINER
PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/516,474	LOBOZ ET AL.
	Examiner	Art Unit	
	Prieto B.	2142	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 November 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3 and 5-9</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3 and 5-9</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 November 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/04</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-3, 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joffe et. al. (US 6,185,619) in view of Attanasio et. al. (US 5,918,017) in further view of Evans, et. al. in A communication-Ordered Task Graph Allocation Algorithm, UUCS-92-026, April 1992, p. 1-25.

Regarding claims 1-3 and 5-9, Joffe et. al. teaches substantial features of the invention as claimed including a computing system comprising

a client (25 of Fig. 1C column 5, lines 1-5, 3-67) and a plurality of servers (column 5, lines 10-32, plurality of servers see column 9, lines 26-39) for serving client request (see column 6, lines 46-66), further including

assigning (scheduling) request transactions within a computing system (see column 3, lines 44-63), including receiving a client transaction request from a client (25 of Fig. 1C) (column 11, lines 27-29); determining the number of currently open TCP connections and the server processor idle time (column 12, lines 17-23, column 30-37, 55-61) and forwarding the transaction request to the best server available among a plurality of server based on best metric value;

however although Joffe et. al. suggest directing the transaction request to the most idle server process, it does not explicitly teach forwarding transaction request to server process having currently opened connection, i.e. connection that have not time out since the last finished execution of a previous transaction (column 5, lines 14-35). Attanasio's et. al. teachings for forwarding transaction request to

server process having currently opened connection, i.e. connection that have not time out since the last finished execution of a previous transaction (Attanasio: column 5, lines 2-13, column 10, lines 25-50)

It would have been obvious to one ordinary skilled in the art at the time the invention was made given Joffe's et. al. suggestion of considering still opened connections that have recently finished execution of a previous transaction and therefore have not timeout and closed after the last finished execution as the best server to which transactions request should be forward, to consider Attanasio's et. al. teachings for forwarding transaction request to server process having currently opened connection, i.e. connection that have not time out since the last finished execution of a previous transaction. Motivation would be to maintain in a gateway transaction processing software the status of server processes include a connection table of the most recently finishes execution of the previous transaction in a dynamic connection table maintaining the status of the server processes.

Joffe et. al. further teaches a gateway (column 9, lines 27-39) for receiving and allocating transactions request from clients (column 9, lines 40-59) via a director routing policy (column 11, line 65 to column 11, line 14); storing the most recent finish time, i.e. non-timed out connections and the status of a server process (Joffe: column 11, lines 66-column 112, line 23, Attanasio: column 5, lines 2-13, column 10, lines 25-50); method is a software implementation (see Joffe: column 4, lines 49-67), server process interacts with a processor executing the software implementation of the method (see Joffe et. al.: column 4, lines 49-67). However, neither Joffe or Attanasio teach using the most recently idle processor.

Evans discloses as prior art a list scheduling algorithm that creates a priority queue of task to be performed and queue of idled processors arranged such that the stack queue causes the most recently idled processor to be the processor selected for allocation (p. 9). One would be motivated to applied these teachings to the above-mentioned system because in doing so the selected task (transaction request for executing that task) is the one which gives the maximum saving in the communication time for the chosen processor which recently idled, as discussed by Evans, et. al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Andrew T. Caldwell can be reached at (571) 272-3868. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see http://pair-direct.uspto.gov or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
      Commissioner of Patents and Trademarks
      P.O. Box 1450
      Alexandria, VA 22313-1450

Hand carried or delivered to:
      Customer Service Window located at the Randolph Bldg.
      401 Dulany St.
      Alexandria, VA 22314

Faxed to the Central Fax Office:
      (571) 273-8300 (New Central Fax No.)

Or Telephone:

      (571) 272-2100 for TC 2100 Customer Service Office.

B. Prieto
Primary Examiner
TC 2100
March 17, 2006

BEATRIZ PRIETO
PRIMARY EXAMINER